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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR         | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------------|---------------------|------------------|
| 10/781,067   | 02/18/2004  | Philip Henry Donald Eastland | 346.1004DIV         | 1843             |
| 23280  | 7590        | 10/13/2006                   | EXAMINER            |                  |
| DAVIDSON, DAVIDSON & KAPPEL, LLC<br>485 SEVENTH AVENUE, 14TH FLOOR<br>NEW YORK, NY 10018 |             |                              | PARSA, JAFAR F      |                  |
|  |             |                              | ART UNIT            | PAPER NUMBER     |
|  |             |                              | 1621                |                  |

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/781,067 | <b>Applicant(s)</b><br>EASTLAND, PHILIP HENRY<br>DONALD |  |
|                              | <b>Examiner</b><br>Jafar Parsa       | <b>Art Unit</b><br>1621                                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/158,752.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/18/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claims 15-22 are objected because these claims are depended on any one of canceled claims 1 to 12. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Early et al (USPN 6,191,174).

Early teaches a process for the production of methanol from a hydrocarbon feedstock comprising: contacting a vaporous mixture comprising the feedstock and steam in a steam reforming zone with a catalyst effective for catalysis of at least one reforming reaction; recovering from the reforming zone a synthesis gas mixture comprising carbon oxides, hydrogen and methane; supplying material of the synthesis gas mixture to a methanol synthesis zone charged with a methanol synthesis catalyst and maintained under methanol synthesis conditions; recovering from the methanol synthesis zone a product gas mixture comprising methanol and unreacted material of the synthesis gas mixture; supplying material of the product gas mixture to a methanol recovery zone maintained under methanol recovery conditions; recovering from the

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methanol recovery zone a crude methanol product stream and a vaporous steam comprising unreacted material of the synthesis gas mixture. See abstract.

Early teaches that a number of methanol synthesis reactors connected in series. A methanol recovery zone is provided between each successive methanol synthesis reactor and after the last methanol synthesis reactor in the series. A vaporous carbon oxide and hydrogen-containing stream from each methanol recovery zone, other than the last in the series, is supplied to a next successive methanol synthesis reactor in the series. See col. 7, lines 54-62.

Early discloses that a single gas compressor is provided to drive the feedstock, synthesis gas and vaporous carbon oxide and hydrogen-containing streams. The plant and process of Early operated using a single stage compressor when the methanol synthesis pressure is maintained at or beneath about 50 bar. If methanol synthesis pressures of over about 50 bar are required, it may become desirable to employ a second compressor. The use of a single compressor has beneficial effects on the cost of building a plant in accordance with the invention and also on the space occupied by such a plant. See col. 8, lines 13-23.

Early teaches that the motive force for gas compression is provided by high pressure steam generated within the plant by a steam turbine. The plant and process of the Early is operated at much lower pressures, as has been explained above. The process of the Early reference can use a smaller compressor than has been used in prior art processes. See col. 7, lines 12-20. Early teaches that the temperature of the

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gaseous reactant entering the methanol synthesis reactor is about 210<sup>0</sup> C. See col. 13, lines 33-37.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jafar Parsa whose telephone number is (571)272-0643. The examiner can normally be reached on 8 a.m.-4:30 p.m. (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP  
September 30, 2006

Jafar Parsa  
Primary Examiner  
Art Unit 1621

  
J. PARSA  
PRIMARY EXAMINER